

September 1, 2005

MEMORANDUM

To: Dr. Vermelle J. Johnson, Chairman, and Members, Committee on Academic Affairs and Licensing

From: Dr. Gail M. Morrison, Director of Academic Affairs and Licensing

**Consideration of Follow-up to Report on Program
Productivity for S.C. State University, Fall 1998-Fall 2003**

Background

In 2002 the South Carolina Commission on Higher Education (CHE) adopted a new policy on program productivity, which provides for the review of enrollment and degrees awarded in all degree programs on a biennial basis. This policy can be found on the CHE website (www.che.sc.gov) under Academic Affairs. Given the dynamic nature of the state's needs regarding academic programming, it is imperative that the Commission, in concert with the public institutions of higher learning, frequently assess the relevance and utility of its program offerings. The program productivity standards constitute a useful tool to do just that.

On March 3, 2005, the Commission on Higher Education met to consider the recommendations presented by the Committee on Academic Affairs and Licensing (CAAL) concerning the *Report on Program Productivity for S.C. State University, Fall 1998-Fall 2003*. The Commission voted to grant provisional approval status for all of the programs at S.C. State University that are not in compliance with program productivity standards until the University's major internal reorganization and the hiring of a new provost was completed, at which time the University indicated it would be ready to address seriously the low enrollment status of six non-compliant programs.

Following Commission action, S.C. State was asked to provide to the CHE a written response concerning the institution's plans to enhance, consolidate, or

terminate any programs that were recommended for provisional approval by June 15, 2005, as well as to provide staff with a date by which the plan would be fully implemented for re-evaluation for program productivity review. The attached report provides a list of the academic degree programs granted provisional approval status, institutional responses concerning plans of action to improve or terminate the noncompliant programs, and staff recommendations.

Evaluation Criteria and Policy

The policy and procedures for academic degree program productivity review require programs offered at public four-year institutions in the state to be evaluated in terms of a five-year rolling average for enrollment and degrees awarded. The following criteria apply:

Academic Degree Program Productivity Standards (Five-Year Average Benchmarks)

| Degree Level | Degrees Awarded | Major Enrollment |
|--|------------------------|-------------------------|
| Baccalaureate | 5 | 12.5 |
| Master's/1 st Professional/ Specialist | 3 | 6 |
| Doctoral | 2 | 4.5 |

1. Each **Baccalaureate** program must produce an average of at least **five degrees** awarded and a headcount enrollment of **twelve and a half students** in the program over the most recent five-year period.
2. Each **Master's** program must produce an average of at least **three degrees** awarded and a headcount enrollment of at least **six students** in the program over the most recent five-year period.
3. Each **Doctoral** program must produce an average of at least **two degrees** awarded and a headcount enrollment of at least **four and half students** in the program over the most recent five-year period.

Under the new program productivity policy, each degree program at each senior institution will be reviewed on a biennial basis. As data sources, staff use the Commission on Higher Education Management Information System (CHEMIS) and the Commission's *Academic Degree Program Inventory*. **Academic degree programs that meet at least one of the two productivity standards automatically receive continuing approval status from the**

Commission. Programs which fail to meet the above criteria are either terminated, placed on probation (i.e., provisional approval status), or exempted from program productivity standards.

**S.C. State University
Noncompliant Programs**

| Degree | Program | CIP | Enroll. Average | Compl. Average | Institutional Request | Staff Recommendation |
|---------------|--------------------------|------------|----------------------------|---------------------------|----------------------------------|---------------------------------|
| Bachelor | Art Teacher Education | 131302 | 6.2 | 0.2 | Provisional Approval | Provisional Approval |
| Bachelor | Health Teacher Education | 131307 | 4.8 | 0.6 | Provisional Approval | Provisional Approval |
| Bachelor | Spanish Language & Lit. | 160905 | 1.4 | 0.8 | Termination | Termination |
| Bachelor | Physics, General | 400801 | 5.2 | 1.4 | Provisional Approval | Provisional Approval |
| Bachelor | Music Performance | 500903 | 9 | 1.2 | Termination | Termination |
| Bachelor | French Language & Lit. | 160901 | 0.4 | 0.2 | Termination | Termination |

Total Programs: 54

Noncompliant Programs: 6

Percent: 11.1

Institutional Response:

S.C. State University submits plans of corrective action to improve productivity in the programs leading to a Bachelors degree in **Art Teacher Education, Health Teacher Education, French Language and Literature, Spanish Language and Literature, Music Performance, and Physics**. In addition, staff met for several hours with deans and faculty representatives for each of the non-compliant programs on July 13, 2005, to discuss the plans of corrective action and to brainstorm other ideas and suggestions.

1. **Art Teacher Education:** For the **Art Teacher Education** program, S.C. State has developed a strategic plan to increase productivity, enrollment, student retention, and graduation rates. The plan includes: increased marketing and promotion of degree; working in concert with local school districts and technical colleges; promotion of financial aid, loan forgiveness, and scholarships for Art

Education majors; expansion of courses available through distance education and the Internet; and partnering with Winthrop and Lander Universities to prepare students for graduate school. (Detailed curriculum maps have been submitted by S.C. State and reviewed by the staff.) The institution plans to enhance and expand current recruitment efforts by increasing scholarships and other financial aid opportunities for students, and by developing partnerships with school districts, high schools, and technical colleges to increase awareness among students about possibilities in Art Education. S.C. State will also focus on successfully marketing and promoting Art Education as an attractive degree option for students by: creating a brochure highlighting career possibilities, scholarships, and the value of an Art Education degree; creating a website to inform and promote the Art Education major to current and potential students; developing an interactive CD-ROM of possibilities, scholarships, and careers in Art Education to mail to potential students; using cultural activities as a spring board to promote the major; involving school districts in museum tours and docent-led workshops at IP Stanback Museum; and involving local technical college students in cultural activities to recruit them into the Art Education program.

S.C. State also plans to expand the course offerings in the Art Education program through distance education and the Internet to increase enrollment numbers in the program. Courses will be offered at remote sites around the state through the institution's Office of Distance Education and Education Technology Services (ETS). S.C. State also plans to focus its recruitment efforts for the Art Education program on students currently enrolled at the University. For instance, faculty led presentations about the Art Education major, benefits, and scholarship availability will be provided to all University 101 students. To attract undeclared majors, a recruitment station will be created in the Teacher Education Care Center (i.e., career development, tutoring, and practice exams) and in the Education Department. In addition, promotional materials will be made available across campus.

S.C. State is currently conducting a national search for a full-time professor in Art Education. The institution states that a full-time art educator would be vested in the program and would be able to take advantage fully of strategies to attract students to the major, teach an upper-level Art Education Theory course, and revamp curriculum. The position is currently being advertised, and applicants are being interviewed to fill the position by August 15, 2005. Furthermore, S.C. State plans to form a partnership with Winthrop and Lander Universities to prepare students for graduate studies in Art Education as well as to learn new ways to market, promote, and build Art Education as an attractive degree for both current and future students.

2. Health Teacher Education: For the **Health Teacher Education** program, S.C. State submits a plan of corrective action to recruit, retain, and graduate students. To recruit students, the institution plans to target both undecided majors as well as entering freshman who have expressed an interest in Health Education. Flyers and letters containing information about the program and Health Education degree will be sent to these students. In addition, Health Education faculty will meet regularly with University Community 101 students to explain the major and its job potential. Health Education faculty will also meet with all Nursing majors who do not have the required GPA for entrance into the Nursing program to discuss the potentials and benefits of a Health Education degree. Furthermore, S.C. State is currently interviewing candidates for a faculty position in Health Education to be filled by the upcoming Fall semester.

To retain students in the Health Education program, S.C. State will administer a cumulative exam on the content of the Health courses taken by a student up to that point at the end of each year. For example, after completing the second year as a major, the student would take an exam on HED 151, HED 160, and HED 214. The next year, the exam would include the above mentioned courses in addition to HED 204, HED 303 and HED 304. In addition, the institution plans to write feature articles for the newspaper showcasing some of the accomplishments of the students enrolled in the Health Education program. The Health Education faculty also plans to arrange with local high schools for Health Education majors to accompany the faculty and teach a Health class.

In addition to cumulative exams, S.C. State also plans to offer students on-line courses through distance education. In 2004, the University for the first-time developed an on-line course in Personal and Community Health (HED 151). Enrollment in the course was filled beyond capacity. As a result, S.C. State has offered the on-line course again to students. Registration data for the course shows full-enrollment for the Fall 2005 semester. Due to the success of the on-line HED 151 course, Health Education faculty will begin work on a second on-line course for students. In addition, S.C. State is also currently looking into the possibility of offering courses through satellite television, at distant campuses (e.g., Greenville Center), and night courses. The University believes that these strategies will improve retention rates in the Health Education program.

To improve graduation numbers in the Health Education program, S.C. State plans to have review sessions for all of the senior class exams as well as review sessions for the departmental exit exam. Any students who fail the Praxis exam will retake the test. Furthermore, the Health and Physical Education faculty will continue to meet regularly with students who have not graduated, to check on their progress and for advisement purposes.

3. Spanish Language and Literature and French Language and Literature:

S.C. State requests termination of the programs leading to a Bachelor of Arts degree in both **Spanish Language and Literature** and **French Language and Literature**. The institution plans to create a new program leading to a Bachelor of Arts degree in *Modern Languages* with a concentration in Spanish and Spanish Education to be offered initially and a concentration in French and French Education to be established at a later time. S.C. State plans to focus its resources on building the track in Spanish by hiring new faculty and enhancing curricula. However, since current faculty in both the French and Spanish programs are able to teach courses in French, the minor in French will be retained for students who select to minor in French Language and Literature.

S.C. State submits a plan of corrective action that includes both short-term and long-term plans to improve productivity in **Spanish**. For instance, the institution will visit local high schools as well as invite area foreign language teachers to campus to discuss the program. The institution also plans to call and write prospective students and undeclared majors for Fall 2005 who have been admitted to the University. The Foreign Language Advantage Program (FLAP) will be developed and implemented on campus along with an advisory committee of public school foreign language teachers. An application brochure will be created for the FLAP program and distributed to high school students through the foreign language teachers. In addition, a program coordinator will be hired to work with high school foreign language teachers on the program, and a new Spanish faculty member will be hired. Furthermore, six credit hours of Spanish will be added to the current public service program areas—Social Work, Counseling, and Health Education—at the University to prepare graduates to address the needs of the growing Hispanic population in the state and nation-wide.

S.C. State also submitted long-term plans for improving productivity in the Spanish program. For instance, the institution plans to develop articulation agreements with existing majors at the University to create double majors that will enhance the value of the degree and the employability of the graduates. A History/Spanish double major will be created and implemented by Fall 2006. Plans are also currently in the works to create and implement double majors in Spanish with Computer Science, Engineering Technologies, Health Sciences, and Criminal Justice programs in the near future. The institution also plans to host a “Language and Your Career Day” for both college and high school students and persons in the community. A three-week language camp will be held during the summer for area high school students which will include cinema, cuisine, music, drama, and other services. In addition, Hispanic students in high school will be targeted for recruitment for majors in Spanish.

Furthermore, department chairs for the Counseling, Nursing, and Health Education programs will be encouraged to incorporate six credit hours of Spanish into their curricula. In addition, S.C. State will provide students with the opportunity to study abroad in Central America and South America through exchange programs. Students will also be given the opportunity to obtain scholarships (i.e., Center for Educator Recruitment, Retention, and Advancement (CERRA) Scholarships in the amount of \$6,000 per year and Parler-Belcher-Sharpe Scholarships in the estimated amount of \$1,000) for a Modern Languages major. Finally, students will be offered final semester internships in Spanish. S.C. State faculty has met with representatives from the Regional Medical Center and the Sheriff's Office to discuss internship opportunities for students.

4. **Music Performance**: S.C. State requests termination of the program leading to a Bachelor of Arts degree in **Music Performance**. Instead, the University plans to develop for Commission approval a new program leading to a Bachelor of Performing Arts degree with concentrations in Drama and Music Performance (i.e., Vocal Performance, Piano and Orchestral Instruments). The degree in Performing Arts will replace the existing degrees in Drama and Music, which the University states are struggling and out-of-date.

The University states that the proposed new Bachelors degree in Performing Arts with concentrations in both Drama and Music Performance will offer students a unique opportunity to explore music and theatre as separate but inter-related art forms in an innovative environment where they can express themselves creatively, study the performing arts in their historical and cultural context, and participate in departmental programs and productions. Thus, the curriculum will be a combination of Studio, Company Production, and University General Education curriculum courses. The new degree program will provide the academic and social education, along with intensive performing arts training, to create a new generation of performers and involved citizens. The program is centered on student performances using studio training to develop the talents of each member. Each student will be involved in production/rehearsal work for public performers every semester. The new degree is expected to be useful for students who would like to develop an interdisciplinary major and concentrate work in more than one department. Likely combinations are Music and Theatre, Music/Theatre and Business, or Music/Theatre and International Studies. Minors are also available in Music, Theatre Arts, Languages, and Communication.

The University states that students will have numerous opportunities to enhance their education in the performing arts while they learn to discipline themselves to the rigors of academia within and outside of the performing arts arena. Students will attend artistic events and workshops with professional artists

and participate in University-sponsored productions, master classes, and eventually experience the opportunity for study abroad.

The current enrollment in the Drama and Music Performance programs for Fall 2005 is 51. The total enrollment includes 16 incoming freshmen and transfer students in the Drama program, and 20 new students in the Music Performance program. To recruit more students for the proposed Bachelor of Performing Arts program, S.C. State has developed a comprehensive recruitment plan for implementation starting Fall 2005. For example, the University will solicit letters of support from area high school drama and music teachers. There are plans to contact area schools, service clubs, fraternities, sororities, community development programs, and local businesses to refer to high school students. S.C. State also plans to host an open house to invite students and their parents to theatre and music events. In addition, the University plans to sponsor an arts festival as well as re-establish the annual "High School Invitational Speech and Drama Festival."

S.C. State's plan of corrective action for the Bachelor of Performing Arts program includes the development of internships and co-operative programs for students. The plan also includes the establishment of scholarships for new majors and other deserving students in the program. In addition, the University plans to seek national accreditation of the Drama program through the National Association of Schools of Theatre (NAST). The Music program has already achieved national accreditation through the National Association of Schools of Music (NASM).

S.C. State plans to develop a brochure for the new degree program to be given to area high school teachers for dissemination to students. The brochure will focus on the new Performing Arts degree and will describe program offerings including student participation in all music and theatre national honor societies, and programs and productions by the University's concert choir and bands. The University's plan also includes strategies for recruitment in new venues. For example, S.C. State plans to develop a monthly television/radio talk show for broadcast at community stations that deals with the arts and theatre on the University campus. In addition, the plan of corrective action for the Performing Arts program also includes brown bag performances to be organized and scheduled at noon in a downtown space or the local mall. Brief performances will be scheduled in local restaurants and in hospitals, nursing homes, and local churches. Furthermore, faculty in the Performing Arts program will encourage businesses to adopt a student, providing financial assistance with books, tuition, and other necessary assistance.

5. **Physics:** S.C. State submits a plan of corrective action for the **Physics** program. The University expects to improve enrollment and graduation numbers in the Physics program in compliance with program productivity standards by aggressively recruiting academically talented students and by offering scholarships to at least four students per year. Due to a five-year HBCU-UP grant in the amount of \$500,000 annually awarded by the National Science Foundation on March 21, 2005, S.C. State is now able to offer in-state students enrolled in the Physics program full scholarships. In addition, the Physics program has recently instituted two new options for Physics majors, in Medical Physics and Astronomy, to attract new majors. The Physics program will also benefit from the newly funded Applied Radiation Sciences Laboratory for Nuclear Engineering and related majors at S.C. State. Furthermore, the University's plan also includes advertisement in a national magazine as well as new brochures for Physics to help publicize these programs widely.

To improve productivity in the Physics program, S.C. State plans to offer students two new concentrations in Astronomy and Medical Physics and a minor in Astronomy. S.C. State is the first college in the state to offer Medical Physics as an option within a degree. Medical physicists apply principles and concepts of physics to diagnose and treat human diseases. The new degree will prepare students to enter a graduate degree program in Medical Physics.

S.C. State has plans to build a recently funded laboratory, the South Carolina State University Applied Radiation Sciences Laboratory. Under the direction of Dr. Kenneth D. Lewis, the laboratory at S.C. State will be a state of the art facility featuring six student training work stations, each equipped with a desktop computer with software that can be converted to simulate a multi-channel analyzer display; a 1" by 1" sodium iodide detector with DigiBase multi-channel analyzer connector; a student quality oscilloscope; a hand held survey meter for contamination monitoring; a Geiger-Mueller detector; and various associated electronics. The intent is to train S.C. State Nuclear Engineering and Physics students to become familiar with and proficient in the use of nuclear instrumentation. The applications and instruction will range from health physics to radiochemistry, nuclear medicine, and nuclear non-destructive analysis. Under the direction of the dean, a large area in the Lewis Laboratory Annex has been set aside as donated floor space for the laboratory.

Two GeLi detectors will be located at other areas of the Applied Radiation Sciences Laboratory, in order to impart high resolution spectroscopy training in radioisotope identification, spectrum analysis for quantification of isotopes, and other radiochemistry applications. Two professional grade oscilloscopes and computers will be assigned to these stations. Moreover, three or more sets of

calibration standards will be purchased. The detectors will be used for student training, faculty research, and agency or industry collaboration projects.

In addition, a surface barrier detector and associated electronics for alpha spectroscopy will be set up in another area of the facility. This will require S.C. State to purchase small sealed alpha sources for training. According to the University, the device and set up is useful for training students in Medical Physics, Radiochemistry, and other applied sciences. A liquid scintillation counter will also be used in the laboratory to analyze dissolved samples. This device, along with the surface barrier detector, will be used in conjunction with the Medical Physics option in the Physics program, in addition to other general nuclear engineering measurements courses. A large personnel contamination monitor will also be used for training purposes.

Furthermore, proportional counters and detectors for analyzing smear wipes for contamination will be set up, along with a Thermo Luminescence Device (TLD) reader. Through use of the Applied Radiation Sciences Laboratory, S.C. State intends to train students in all aspects of Radiation Health Physics. Later, it is anticipated that, in collaboration with Savannah River Plant National Laboratory (SRNL) and the SCSU Electrical Engineering and Mechanical Engineering departments, University faculty and staff will design and construct imaging devices for homeland security and medical applications. S.C. State also hopes to obtain (on loan from SRNL) active well coincidence and multiplicity counters for quantitative analysis and NDA training in the near future.

To acquaint teachers and students with the opportunities for research available at S.C. State, Research-Infused STEM Curriculum (RISC) will sponsor (in collaboration with the Admissions Office, the Louis Stokes South Carolina Alliance for Minority Participation (LS-SCAMP), and the Honors Program) an annual “STEM Day” at S.C. State. Teachers from fifty high schools across South Carolina will be invited to bring three potential RISC scholars to campus for a day to visit laboratories, meet faculty members and undergraduates, and learn about STEM programs. Teachers will be paid a stipend and reimbursed for transportation costs. The network of teachers cultivated through STEM Day will ensure that information about RISC continues to be shared with students throughout the state.

The University also plans to establish relationships with the state’s technical college system focusing on Midlands Technical College, Orangeburg-Calhoun Technical College, and other two-year institutions which will serve as potential sources for recruiting students. S.C. State has already collaborated with Orangeburg-Calhoun Tech by providing technical assistance, hardware, and software in support of their robotics course and laboratory. A remote access site

for S.C. State's astrophysical research has also been established at Orangeburg-Calhoun Tech. These connections insure that talented students in the technical college system can be identified and nurtured during their first two years and in their transition to the four-year institution.

S.C. State plans to begin immediately to fulfill its pledge of creating a nurturing environment for students who choose to become STEM scholars. These students will participate in the Louis Stokes South Carolina Alliance for Minority Participation (LS-SCAMP) summer bridge program. This six-week NSF-funded program will be expanded to accommodate the additional STEM scholars. The statewide bridge program, managed by Dr. Judith Salley at S.C. State, helps students become acclimated to the demanding academic environment. While LS-SCAMP students typically take courses in mathematics and computer science, STEM scholars will instead take other required courses to enable them to participate in the *Integrated Mathematics, Physics, Engineering, and Chemistry Curriculum (IMPEC)*.¹ STEM scholars will take IMPEC Calculus and IMPEC Introduction to Computer Science courses in the fall. STEM scholars will spend the afternoons during the summer shadowing S.C. State researchers. By the last week of the summer bridge program, a student will have decided on a faculty advisor based upon research interests and with input from the RISC Program Manager. During the academic year, students and their advisors will have regular meetings to monitor students' academic progress and to plan summer research experiences. STEM scholars from the technical colleges will be given the same opportunities to meet faculty as other students by arranging the meetings to fit their school and work schedules.

Finally, the University states that each year twelve STEM scholars will be selected from first-time college students and technical college students. Scholarship applicants will be evaluated for an award based on criteria used for

¹ **Integrated Mathematics, Physics, Engineering, and Chemistry Curriculum (IMPEC):** The proposed S.C. State integrated curriculum in biology, mathematics, physics, chemistry, and engineering technology will be an adaptation of the successful IMPEC (Integrated Mathematics, Physics, Engineering, and Chemistry Curriculum) model developed at North Carolina State University. The IMPEC curriculum at N.C. State was designed to foster a highly collaborative, technology-rich, activity-based learning environment and has been shown to have a positive impact on a variety of conceptual and problem-solving assessments and attitude measures. Students enrolled in the IMPEC sections at NC State outperformed the control group in the introductory courses by a significant margin and retention in engineering substantially improved, especially for underrepresented groups. The integrated curriculum for S.C. State will be developed and piloted for a year by a core group of faculty members. These faculty members will conduct workshops for other faculty members so that the IMPEC can be spread throughout the introductory courses in calculus, computers, chemistry, and physics. Every year a new core group of six faculty members will be identified.

the South Carolina Education Lottery Scholarships, two letters of recommendation from math and science teachers, and an essay expressing a strong interest in a research career in science, engineering, or mathematics. Transfer students from the technical system will be evaluated on the basis of their college grades and the recommendations of two of their college instructors. At least four scholarships will be awarded to Physics majors annually.

All of these proposed enhancements to the Physics program are designed to increase enrollment in Physics courses and increase the number of Physics majors in order to preserve the future of the program at S.C. State. This in turn will help ensure the continued external funding of programs in Physics, such as the \$8 million from NASA managed by the University's Physics program for the period of February, 2004 to February, 2007.

Recommendation:

The staff suggests that the Committee on Academic Affairs and Licensing recommend that the Commission:

- 1.) Accept the plans of corrective action submitted by S.C. State for the programs leading to a Bachelors degree in **Art Teacher Education, Health Teacher Education, and Physics.**
- 2.) Accept the proposed terminations submitted by S.C. State as follows:
 - a. program leading to a Bachelor of Arts degree in **Spanish Language and Literature**
 - b. program leading to a Bachelor of Arts degree in **French Language and Literature**
 - c. program leading to a Bachelor of Arts degree in **Music Performance**, with the new program proposal for a Bachelors degree in Performing Arts to be submitted to CHE following established procedures.
- 3.) Accept the proposed program consolidation by S.C. State establishing a new program leading to a Bachelor of Arts degree in Modern Languages with a concentration in Spanish and Spanish Education to be offered initially and a concentration in French and French Education to be added at a later time.
- 4.) Recommend that the administration ensure that each program area have adequate faculty, including new hires projected in the report, with the goal of a minimum of three faculty per program area as enrollment growth expands.